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ABSTRACT

This study was conducted to examine the perceived value of reflective practices/techniques in Christian college teacher education programs; and the usage level of techniques and practices for the infusion of reflection in Christian institutions. A review of the literature determined the following 10 reflective practices and techniques as a viable sample of reflective methodologies: autobiography, case studies, critical inquiry, curriculum analysis and modification, dialoging, ethnography, forums, journals, portfolios, and problematizing (analyzing and solving problems). A survey instrument was developed and mailed to 88 individual faculty members from the Christian College Coalition. Recipients were asked to rate perceived value and usage levels of the 10 reflective practices/techniques and respond to a variety of demographic questions. The final return rate of usable surveys was 71.6 percent. According to the data analysis, respondents generally favored and hoped to increase the usage of reflective practices/techniques; and no differences were noted in the ratings of those teacher educators holding master's degrees as compared to those holding doctorates, or in the ratings of those whose background was in elementary education as opposed to secondary. Based on results of the study, recommendations and some implications for further research are included. A copy of the survey instrument is appended. (Contains approximately 30 references.) (LL)

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Reflective Infusion in Christian College Teacher Preparation

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The purpose of this study was to answer two key questions: First, What is the perception of teacher educators in Christian institutions concerning recognized practices and techniques used in producing reflective preservice teachers? Second, What is the usage level of various recognized techniques and practices for the infusion of reflection in preservice teachers by teacher educators in Christian institutions? The population of interest in this study was composed of professors of education who taught at Christian College Coalition member colleges and universities in the western United States. The entire population was surveyed (N=88) and 63 subjects responded within the appointed time. These then made up the sample.

A survey instrument was used to collect the data. In addition to demographic information about the respondent, the instrument was designed to determine respondent values and levels of usage for ten commonly listed reflective practices as ascertained from the literature.

Data analysis consisted of frequency counts, percentages, measures of central tendency, t-tests, and a ONE-WAY ANOVA with regard to the respondents' valuing of the reflective methodologies. Furthermore, the analysis consisted of frequency

tables, histograms, and bar charts showing the respondents' current and anticipated future usage levels of the reflective practices/techniques.

The following conclusions were drawn from the analysis and interpretation of the data in this study. Christian college teacher educators favor reflective practices/ techniques for preservice teachers in their programs. Christian college educators will increase their usage of reflective practices/techniques in their programs in the future. More Christian college teacher educators will use reflective methodologies than will not use those methodologies in the future. There was no difference noted in the ratings of those educators whose background was in elementary education as opposed to those from secondary experiences. There was no difference noted in the ratings of those teacher educators holding master's degrees as compared to those holding doctorates.

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CHAPTER I. INTRODUCTION

Teaching teachers to teach is not an easy task. Teaching teachers to teach reflectively is even more difficult. Christian teacher educators have a responsibility to prepare teachers whose worldview is somewhat different from that of non-Christian teachers. In carrying out this preparation, it is desired that those teachers will learn not only strategies and course content, but will also develop the ability to consider and/or compose the rationale behind those strategies and course content. In thinking critically about what they do, Christian teachers must be able to ground all their activities in Christian principles.

As the researchers thought about reflective practice and the reflective practitioner, and worked to develop a coherent and concise definition, the discovery was made that although there exists literature that attempts to define reflective practice, very little has been written about who actually teaches the process of reflection, and what practices those teachers believe are important in developing reflective practitioners. Reflective practice is currently an important issue in educational circles. Many educators talk about developing reflective teachers, but most talk in generalities. Do Christian educators, who prepare a portion of the nation's future teachers, believe in reflective practice, and do they put this belief into action by applying those techniques that they think foster reflection in their students? The answers to those questions do not appear to be available.

The researchers' key questions sought to compile this information. Ten practices/techniques were identified that seemed to embody current thinking on what

teachers can do to become reflective practitioners. The first question addressed the issue of perceived validity of these practices/techniques by Christian teacher educators. The second question asked these same teacher educators about their own infusion of the ten practices/techniques in their current education courses and their plans for use in future coursework. As a foundation for discussion on infusion of reflective practice in teacher education programs, the researchers believe it is important to understand both belief and actual usage.

As reflective practitioners themselves, teacher educators must be cognizant of their rationale for infusing these techniques into their own practice. Christian teacher educators in particular have a responsibility to their students to probe the strategies they use to train Christian teachers. Do they value the strategies/techniques that are currently promoted for training in reflective practice, and do they use these strategies/techniques in their courses?

Much has been written of late concerning the essential nature of reflective practice in the interest of improving the education of the nation's children. With the continuing flow of negative reports concerning achievement in academic areas by American students, teachers are increasingly being held accountable for the learning, or lack thereof, that occurs in their classrooms. Teaching strategies that were valued in the past are often viewed as ineffective for the students of today. A reflective teacher will look for more effective strategies by continually evaluating current practice and then adjusting practice to facilitate optimum learning in his/her classroom.

Many teacher educators believe that the most effective time to learn reflective practice is during the teacher training program that every future teacher experiences. Practices learned and applied during this time are much more likely to be implemented than are practices that are taught after the teaching career has begun. A reflective teacher is much more likely to continue that reflective practice in his/her own classroom than to learn reflection as a new skill after teaching for a time. In order for teacher educators to model reflective practice, they themselves must consider what they value as reflective practice, what will be most beneficial to their students, and how to implement those practices in teacher education programs.

The Christian teacher educator has an additional incentive for evaluating his/her beliefs about reflective practice. The foundation of Christian principles is built on the premise that each individual will evaluate underlying philosophies and construct his/her rationale for action. The Christian educator cannot afford to, without serious consideration, adopt philosophically antithetic activities that may have negative ramifications for his/her students. Reflective practice itself is no exception. A recent article in the Harvard Educational Review connects Zen to reflective practice in teacher education (Tremmel, 1993). It is essential for Christian teacher educators to carefully consider what it is about reflective practice that they value and why they do so.

The researchers also thought it valuable to know which of the currently advocated strategies/techniques are in use at this time in Christian college teacher preparation programs. This information was not available in the literature, and if

teacher educators have given attention to effective strategies/techniques, they should be using those practices which they deem most valuable for preparing reflective teachers. The literature does seem to support a reasonably common core of effective strategies/techniques that should be included in a teacher education program. How many of these are included in the typical Christian teacher education program?

Some teachers seem to be predisposed to reflection, while others just want to be told what will work for their classrooms (Adler, 1991). For these teachers, an array of reflective strategies/techniques will provide some structure while at the same time forcing them to think about the efficacy of each practice in their personal repertoire. Few, if any, teachers will continue to apply all of the practices they experienced in their teacher education programs. If teacher educators believe in reflective practice, they will provide opportunity for their students to experiment with enough reflective practices to allow each one to find a good fit with his/her beliefs and personality.

As a foundation for discussion on reflective infusion in Christian college teacher preparation, the investigators believe that the answers to the questions of value and use of common reflective strategies/techniques are essential. Knowledge of who does value which practices and who implements those practices provides a common starting point for further discussion on the infusion of reflective practice. This information also spurs these and other researchers to ask deeper questions about why these particular practices are believed to be effective in the training of reflective

practitioners, and why they are useful for classroom teachers in general and Christian classroom teachers in particular.

There has been no research to this point that has addressed the issues of whether or not teacher educators in general believe in and practice reflective strategies/techniques in their teacher education programs. And specifically, there is no research in the arena of Christian teacher educators. Christian teacher educators must carefully examine this topic in order to determine the value for them of infusing a complex series of ideas that may or may not finally produce reflective practitioners for the classrooms of tomorrow.

The purpose of this study then was to determine exactly which reflective strategies/techniques are valued and used by which Christian teacher educators. The intention was to document baseline data on which further discussion of the topic could be built. This study targeted only regular faculty in education departments of Christian colleges to determine how reflective practice has been integrated into teacher education programs.

As far as the researchers could determine, the literature on reflective practice has come from secular teacher education programs and researchers. There are some inherent differences in basic philosophy between secular and Christian colleges, and one would expect some differences in the rationale for infusion of reflective practice. However, the rationale and form of the practice can best be discussed when built on the foundation that will be put in place by this study.

In an effort to secure answers to the aforementioned key questions, the researchers established the following as the objectives for this study:

1. To determine the perception that teacher educators in Christian institutions have concerning various recognized practices and techniques used in attempting to produce reflective preservice teachers.
2. To determine the usage level of various recognized techniques and practices for the infusion of reflection in preservice teachers by teacher educators in Christian institutions.

CHAPTER II. REVIEW OF LITERATURE

The review of literature will be discussed in two sections: 1) Related Research and 2) Related Literature. As stated previously, there is little research regarding the efficacy of reflective practice for teachers or its infusion in teacher education programs, and no research relating specifically to Christian college teacher education programs. Related literature speaks to many facets of reflective practice infused into teacher education programs. Discussion will be in relation to the desirability of reflection in practice, specific practices/techniques thought to be effective, and infusion of these practices/techniques into teacher education programs.

Related Research

Research on reflective practice in education is rather limited in regard to both inservice and preservice teachers. There are many questions and few answers. Ross (1990) suggested that the lack of research may be due, in part, to the fact that reflection is a complex mental process that is difficult to assess. There is not a clear, universally accepted definition of reflective practice, and Ross noted that there may never be such a definition with enough behavioral specificity to measure quantitatively. Zeichner (1987) indicated that most research consists of self-reports or isolated examples of success that may not be generalizable. The research that does exist is, for the most part, qualitative.

David Hursh (1988) did an ethnographic study of an elementary education program at a large midwestern university by following eight students through a social

studies methods course. Hursh noted a number of relevant findings. He stated that only some of the student teachers became more reflective. Adler (1991) believed that some teachers seem to be predisposed to reflection, while others were much more interested in the technical aspects of teaching.

In another observation, Hursh stated that the teacher education program he observed was only partially successful in developing reflective teachers. He believed that program organization was crucial to the development of reflective teachers, and that programs may even impede that development through artificial distinctions between foundations and methods. By self-report, the students perceived the student teaching experience to be the most important piece of the program. In this component, they were encouraged to reflect on experiences that they were actually undergoing in the classroom. Sparks-Langer, Colton, Pasch, and Starko (1991) also believed that experience in the field is vital.

> This finding supports the need for structured field experiences as well as the need for coordination of the content and field activities in teacher preparation programs that hope to promote cognitive reflective thinking. If we are to move future teachers toward autonomous reflective thinking, we must find ways to encourage causal thinking that is based on knowledge of students, teaching and learning (p. 8).

According to Hursh, teacher education programs need to integrate critical, ethical and practical aspects of the teaching process.

Hursh suggested three impediments to developing reflective practice in preservice teachers. The first of these was lack of faculty consensus on the definition of the reflective teacher. The second was, as Hursh perceived it, a lack of interest in raising critical and ethical issues. Many faculty are focused on technical expertise

rather than reflective problem solving. The third impediment resided in the fact that each instructor who believes in reflective practice tries to cover the entire spectrum of development. The instructors do not use the foundations that have been built by other instructors in other courses,

The conclusion by Hursh was that teacher educators need more practical suggestions for how to foster reflective practice in preservice teachers. They also need to know whether or not reflection is really a valuable tool in developing effective teachers.

Sparks-Langer et al. (1991) also found that modeling, practice, and coaching are critical elements for any teacher education program that hopes to develop reflective teachers. The instructors in the program must be reflective practitioners in order to pass on those characteristics that foster reflection in their students. The students need time in field experiences to develop reflective characteristics (Sparks-Langer, Simmons, Pasch, Colton, and Starko, 1990). These elements, combined with peer coaching, were deemed most important to a successful program.

Korthagen and Wubbels (1991), in analyzing data from a limited study of mathematics teachers in the Netherlands, concluded that reflective practitioners have better interpersonal relations with students. They spent more time focused on their students, rather than on their subject matter. They knew their students in more depth than nonreflective teachers, and therefore they were better able to adjust teaching methods to match student needs.

Korthagen and Wubbels noted that reflective practitioners displayed a significantly higher level of job satisfaction. They suspected that lack of thoughtfulness about practice leads to lack of change, which in turn leads to boredom and burnout. On the other hand, reflection engenders self-efficacy, which in its turn leads to a focus on students and their needs rather than on self and selfish needs.

Reflective teachers were also found by Korthagen and Wubbels to consider it more important for students to learn by investigation. They tended to pass on to their students the reflective techniques that they themselves practiced.

An important finding by Korthagen and Wubbels was that in the first year of teaching there was no apparent difference between students who had been in or out of a teacher education program that purported to foster reflective practice. They agreed with other researchers that the first year of teaching is spent in a survival mode. However, marked differences in the abilities of these teachers to think reflectively and problem solve effectively began to appear in the second year and beyond.

Again, research on efficacy of reflective practice or its infusion in teacher education programs is scant. Researchers are asking many questions, and as more practitioners become convinced of the usefulness of reflection in practice, research should become more prevalent. No research was found by the investigators that pertained specifically to the training of Christian teachers by Christian teacher educators.

Related Literature

The related literature will be addressed in three parts. These are: desirability of reflective practice, specific practices/techniques, and infusion of reflective practice into teacher education programs.

Most of the literature on reflective practice is favorable, although much of this is belief rather than proven fact. John Dewey is often quoted when discussing the efficacy of reflective practice for the teacher. Dewey noted that reflection limits the impulsive nature of teaching and enables educators to act with intention and deliberation (Clift, Houston, and Pugach, 1990). Schön (1987) stated that the reflective practitioner is one who can think while acting, and thus can respond to the uncertainty, uniqueness and conflict involved in the situations in which professionals practice. Dewey often talked about "thinking on one's feet" (Schön, 1987). This allows the teacher to adjust his/her lesson as it progresses, and to correct deficiencies at the time they occur, rather than waiting until a later time when the effect of correction will be greatly diminished.

Schön (1987) dealt with reflective practice in an organizational context. He believed that for reflective activity to take place, the organizational context must be supportive. This specifically included mentors who were able to challenge the practitioner to think about his/her practice, which then would result in change within a supportive environment. Sparks-Langer et al. (1991) noted that through reflection the practitioner can make sense of what is occurring and use that sense to guide further action.

One of the most important aspects of reflective practice seems to be the ability to stand back and see a situation from multiple perspectives. Moore, Mintz, and Biermann (1988) believed that this allows the reflective teacher to weigh implications of both problems and proposed solutions before taking action. Reflective teachers, having weighed the alternatives, are then more likely to take risks and continue to learn. Sparks-Langer et al. (1990) believed that one of the greatest challenges of teacher educators is to produce teachers who will think about research and apply it appropriately in their teaching practice. Novices are less likely to think through a situation and consider alternatives before acting (Colton and Sparks-Langer, 1993). Teaching is full of dilemmas, and a teacher who endeavors to follow a set of rules will not long be successful in the classroom.

Zeichner and Liston (1987) discussed three levels of reflective practice for the teacher. The first level was concerned with technical skill. The teacher questions only which teaching strategies will best enable their students to meet predetermined educational objectives. The teacher does not question the objectives or the rationale for the methods outside of efficiency. The second level of reflection was focused on the influence of context and the worth of competing goals. At this level the reflective teacher will question and consider alternative objectives. The third level was where Zeichner and Liston believed reflection should ultimately lead. This was a questioning of moral and ethical issues. Does schooling contribute or fail to contribute to a just and humane society? Colton and Sparks-Langer (1993) also believed that moral and democratic principles must guide the actions of the reflective

teacher in his/her classroom in order to ensure equal treatment for all students and the best possible environment in which to learn.

Sparks-Langer et al. (1991) suggested that teachers who made decisions in a flexible and thoughtful way would probably produce more thoughtful students. Instruction in reflection is by example, and it creates self-confidence in both the teacher and his/her students (Oberg, 1989). Reflection in the classroom will also motivate both teacher and students to break away from old thought patterns and integrate new ideas for continued learning and personal growth. Bellon, Bellon, and Blank (1992) stated that reflection is the key to personal growth and renewal. Reflection allows the learner to link prior experience to new knowledge.

One of the key elements of reflective practice, according to Schön (1987), is the making of implicit knowledge of the teaching and learning process explicit, so that the knowledge can be examined. Oberg (1989) believed that reflection was more a state of mind than a set of skills. Schön (1989, p. 9) stated:

> The confrontation with directly observable data often produces an educational shock, as teachers discover that they act according to theories of action different from the ones they espouse.

Making meaning from teaching is an important task for teachers who survive and are successful in the classroom (Pugach and Johnson, 1988). Making decisions is crucial to teaching, and the role of teacher as decision maker necessitates reflection.

Many researchers have come to believe that technical proficiency is not enough to produce successful teachers. The ability to think reflectively and problem solve is a vital role for teachers approaching the 21st Century. Reflective thinking is

not just a desirable practice, but may be an essential practice for the survival of the classroom teacher and his/her students.

The second area addressed in the literature related to reflective practice is the specific practices/techniques that are infused into teacher education programs to promote reflection in preservice teachers. The practices/techniques that will be considered include: autobiography, case studies, critical inquiry, curriculum analysis and modification, dialoging, ethnography, forums, journals, portfolios, and problematizing.

If teacher educators believe that knowledge is built on prior experience, autobiographies are helpful in thinking about the personal experiences of the student teacher. The students can use autobiographies to explore their own experiences, styles, and goals for teaching (Adler, 1991). Adler believed that autobiographies helped the students move back and forth between experience and the information they were gaining in the teacher education program courses. They can see how personal stories differ and why they differ. The students may also question the unexamined portions of their own lives. Stories are a part of each individual, and to understand happenings in context, an individual will need to make explicit his/her own story.

Case studies are detailed accounts of situations that have or could have happened. They come in various lengths and in a variety of detail. Sparks-Langer et al. (1990) determined that adding more case studies to their program afforded their students the opportunity to discuss why things do or do not work. Noordhoff and Kleinfeld (1990) believed that case studies helped their student teachers spot central

issues from different viewpoints and consider alternative strategies and predict consequences in a safe environment. Case studies can provide concrete situations for reflection when actual experiences are not possible or have not yet arisen in the student teacher's experience (Adler, 1990). Case studies are most useful in a seminar or small group situation where each student has time to reflect and weigh the alternative solutions to the problem that has been posed.

Adler (1991) suggested that the process of critical inquiry might consist of: (1) writing a narrative about a confusing or perplexing situation, (2) uncovering implicit theories, (3) confronting and re-evaluating operational theories in a broader context, and (4) reconstructing by gaining control of self and considering alternatives. In this process, the reflective teacher has the opportunity to question what is taken for granted and look for unarticulated assumptions and new perspectives (Adler, 1990).

Curriculum analysis and modification is undertaken to consider what is important for learners and why these things in particular matter (Adler, 1991). Zeichner (1987) stated that curriculum analysis focused on increasing sensitivity to the values and assumptions embedded in particular curriculum materials and programs. Teachers should develop, not just implement, curriculum. In doing this during a teacher education program, a preservice teacher can come to better appreciate the thought that must go into curriculum development. It is important to understand the rationale behind the goals and activities.

Another vital practice/technique, according to Schön (1987), was dialoging. Dialog between student and mentor is necessary for growth and development of the

student. The mentor continually prods the student to stretch and grow. Ross (1990) stated that dialoging developed common meaning between the teacher educator and the preservice teacher and encouraged thinking from multiple perspectives. Adler (1990) suggested that dialoging helps the student to more efficiently problematize a situation, which is a necessary step before a problem solving process can be initiated. Dialoging can be between students or between a student and a coach (Adler, 1991).

Zeichner (1987) believed that ethnographies are a valuable tool for developing reflective practitioners. The students were asked to spend time studying and synthesizing systems of classrooms, curriculum, and other facets of the educational process. This assisted the student in discovering hidden assumptions in the organization and then in seeing and inventing alternatives to current practice. Adler (1991) suggested that through a school ethnography a student teacher could systematically discover underlying belief systems and cultures. Before changes can be made, the existing culture of an organization must be understood and accommodated.

Forums are used as a small group process to analyze and solve problems. The students have the opportunity to hear other opinions and may develop the ability to see other perspectives (Adler, 1990) which is an important part of the reflection process. This promotes open-mindedness and a willingness to consider other viewpoints.

Perhaps the most mentioned reflective practice/technique was the journal. Although Zeichner (1987) indicated that there is no clear validation of the efficacy of journal writing for developing reflective practitioners, he did note that, outside the

teacher education field, there is documented evidence that journal writing stimulates higher level thinking. Adler (1991) viewed the journal as a valid vehicle for reflection. It is often in journaling that the teacher will make connections in what seem to be ramblings (Canning, 1991).

The content of journals varies from program to program. Zeichner (1987) suggested four elements that should be included in a student teacher's journal: what s/he knows, what s/he feels, what s/he does and how it is done, and why s/he does what s/he does. Sparks-Langer et al. (1990) included three instructional events for student teachers: what they learned, factors that influenced outcomes, and what they would do differently the next time and why. Frieberg and Waxman (1990) suggested that students record experiences and raise questions in their journals. The instructor then should respond to the journal either verbally or in writing. The literature would seem to indicate that journals are used extensively in the process of developing reflective teachers.

The use of portfolios was not specifically addressed in the literature that was examined by the investigators. However, a portfolio, as defined by the investigators, is a collection of evidence of professional competence. Producing a portfolio requires reflection through self-assessment in order to determine what should be included in the portfolio. Frieberg and Waxman (1990) warned that ratings of self-assessments tend to be higher than assessments which are made by supervisors. It is therefore important that a database for reflection in self-assessment is established in order to measure teaching. Self-assessment is a reflective practice that becomes more realistic

as the teacher gains experience in the classroom. The development of a portfolio enables the student teacher to compare products and provide evidence of professional competency through a variety of mediums.

The final practice/technique that was utilized in this study was problematizing. Schön described problematizing as the act of naming and framing a problem. The student identifies what is to be attended to, and where to locate the center for reflection. Adler (1990) suggested that in this way problems that were out of the routine could be identified and then new or creative solutions could be posed and considered.

The final area to be discussed is the infusion of reflective practices into teacher education. This is a natural result of the preceding discussion of reflective practices for inservice teachers and practices/techniques that are believed to promote reflective thinking.

Adler (1990) noted that although there was still little empirical evidence that any of the above mentioned practices/techniques promotes critical or reflective thinking, this should be an ongoing conversation in educational circles. She seems less than assured that teacher educators are really practicing these things in their programs. Sparks-Langer et al. (1990) believed that reflection was necessary to connect the concepts and principles from courses to the reality of the classroom. It is only through reflection that the teacher can make a thoughtful and appropriate decision.

Zeichner (1987) believed that reflection in preservice training was necessary for continued reflection during inservice. Since preservice teachers come to teacher education programs with over 3000 days logged as participant observers in schools, and hold strong views about that experience, reflection may be the only way to encourage critical thinking and growth. Teaching is a complex activity that is not highly predictable, and teachers will need reflective practice that is transformative (Zeichner, 1987), rather than utilitarian, to make informed thoughtful decisions in the changing workplace (Adler, 1991).

Korthagen (1991) reminded teacher educators that reflection fosters feelings of security and self-efficacy in student teachers. They write and talk more easily about their experiences. Reflective student teachers tend to be more technically competent as a result of being more realistically self-critical. They know what they want and need to learn.

There is a good supply of literature addressing reflective practice and the reflective practitioner in secular teacher education programs. However, there are still many unanswered questions about reflective practice in teacher education, and particularly in Christian college teacher education programs.

CHAPTER III. DESIGN AND METHODOLOGY

The purpose of this chapter is to describe the methodology and procedures used in the implementation of this study. These shall be described in detail under each of the following headings: definition of terms, design, population identification, instrumentation, data collection, and data analysis.

Definition of Terms

After an examination of the current literature on the subject of infusing techniques and methodology into teacher education programs for the development of reflective teachers, the following list of practices was compiled based on the most frequent occurrences of listed practices in the literature.

- **Autobiographical works** — Where students write detailed histories about themselves, and then tie these works back to how they see themselves as both learners and teachers.
- **Case studies** — Where students read and analyze a series of well documented incidents concerning the solving, by others, of real-world educational problems.
- **Critical inquiry** — Where students are encouraged to methodically question actions, practices, approaches, etc... which are otherwise taken for granted as status quo.
- **Curriculum analysis & modification** — Where students apply recognized curriculum analysis strategies in order to assess quality and potential effectiveness. Curricula is then modified as necessary.
- **Dialoging** — Where student teachers participate in scheduled sessions with either their cooperating and/or

	supervising teachers to discuss problems, strategies, etc.
• **Ethnography**	Where students write "biographies" of the school settings where they do their teaching practica so as to understand why the school is the way it is.
• **Forums**	Where students conduct panel discussions dealing with any issue that relates back to the profession of education.
• **Journals**	Where students write regular, ongoing entries into a log reflecting on the events which occur during their teaching practica.
• **Portfolios**	Where students provide evidence of professional competencies through a variety of mediums (e.g. paper, video, diskette, etc.).
• **Problematizing**	Where students define and analyze specific problems in their teaching setting, and are then required to develop solutions for those problems.

Design

This study was descriptive in its methodology. Borg and Gall (1989) stated that descriptive research, in a broad sense, has been responsible for targeting efforts which have led to major scientific discoveries. From a research perspective, they suggested that it has significantly increased the body of knowledge about what happens within schools. Furthermore, they (Borg & Gall, 1989, p. 5) noted that, "Some descriptive research is intended to produce statistical information about aspects of education that interest policymakers and educators." This latter point is germane to the intent of this study. The merits of applying descriptive methodology to this

study were clearly identified by Ary, Cheser-Jacobs, and Razavieh (1990) who noted that:

> Descriptive research studies are designed to obtain information concerning the current status of phenomena. They are directed toward determining the nature of a situation as it exists at the time of the study. ...The aim is to describe "what exists" with respect to variables or conditions in a situation (p. 381).

The review of literature indicated that while much has been written about the "reflective practitioner," and even about the infusion of reflection into teacher education programs, little was available to indicate what the level of acceptance was for the various practices, or to what level these practices were currently being used in educational programs. Furthermore, nothing was found concerning the aforementioned points as they pertained to teacher education programs at Christian colleges and universities. As with most research issues, the question of "what is" must be answered before any investigation can be implemented in seeking to address the question "why."

Population Identification

The population of interest in this study was composed of professors of education who taught at Christian College Coalition (CCC) member colleges and universities in the western United States. The professors must have taught at institutions which offered a four-year degree in elementary or secondary education which would qualify graduates for either elementary or secondary teaching licensure by their respective states. Seventeen such institutions were identified using Peterson's

Guides (1992), Choose a Christian College. These schools were located in the following states: Washington, Oregon, California, Arizona, Colorado, and Idaho. Each institution was contacted, and the names of all faculty who were at least ¾ full-time equivalency in their respective teacher education programs were secured to constitute the frame. In total, this made up a list of 88 names. The entire population was surveyed. Given the small size of the population, there was no need to randomly select a sample.

Instrumentation

Based on the study's first key question, "What is the perception of teacher educators in Christian institutions concerning various recognized practices and techniques used in producing reflective preservice teachers?" the researchers selected ten of the most often listed practices discovered in the literature review (see **Definition of Terms**) and included them in the questionnaire to be responded to by the survey population.

In an effort to address the second key question of the study, "What is the usage level of various recognized techniques and practices for the infusion of reflection in preservice teachers by teacher educators in Christian institutions?" the researchers included in the questionnaire the same ten practices and techniques addressed above so that the survey population might rate their personal level of usage for each item. The questionnaire concluded with a section addressing a variety of demographic questions.

The content validity of the instrument was checked by six individuals; Dr. Wade Miller, Professor of Agricultural Education at Iowa State University, Dr. R. Lee Cole, Department Head of Agricultural Education and General Agriculture at Oregon State University, Dr. Joel Arrick, Dr. Ron Narode, Dr. Douglas Robertson, and Dr. William C. Greenfield, all professors in the School of Education, at Portland State University, in Portland, Oregon. These individuals examined the survey instrument and suggested a variety of changes, approaches, and improvements.

In its final form, the questionnaire contained three parts. The first part was entitled "Perceptions of Practice/Technique Validity," and it posed ten practices and techniques which sought to address objective number one of this study:

> To determine the perception that teacher educators in Christian institutions have concerning various recognized practices and techniques used in attempting to produce reflective preservice teachers.

The second part of the survey was entitled "Perceptions of Current & Future Use," and it listed the same ten practices and techniques in order to address the second objective of this study:

> To determine the usage level of various recognized techniques and practices for the infusion of reflection in preservice teachers by teacher educators in Christian institutions.

The third part of the instrument was entitled "Demographic Information," and as the name indicates, it asked the respondent for eight pieces of personal information. A copy of the final questionnaire is included in Appendix A.

Part one of the instrument required the respondent to indicate his/her position by rating each item on a modified 1 to 9 Likert-type scale. This scale was chosen for

two reasons. First, it allowed the respondent the most convenience in answering. Second, the 1 to 9 response allowed for an interval scale with a wide enough range to facilitate an adequate distribution of responses in developing realistic means.

Part two of the instrument required the respondent to indicate his/her current and perceived future use of each of the ten listed practices and techniques by circling one of the four options associated with each of the ten items. The four options were as follows:

1 - Currently using, and will continue to use
2 - Currently using, and plan to discontinue
3 - Currently not using, but plan to use
4 - Currently not using, and plan not to use

Part three of the instrument sought to collect relevant personal background from each respondent so that the data could be examined in terms of other related variables. Respondents were to report in which of three western U.S. regions they taught. The regions were partitioned as follows: The first region consisted of Oregon and western Washington. The second region was the state of California, and the third region consisted of the remaining western states including eastern Washington. These regions were selected primarily on the basis of geography and perceived potential for cultural/sociological differences. Other demographic data included the number of years of K-12 teaching experience, the grade level of that experience, the number of years of collegiate teacher education experience, the highest degree attained, the year of receipt of said degree, and gender.

Finally, each individual in the population was assigned a code number between 1 and 88. This code number was hand written on the questionnaire that was sent to

that specific individual. At no time were any of the respondents asked to identify themselves in any way, thereby protecting their anonymity.

A post hoc reliability was run on the perceptions portion of the instrument after the data were collected. The 10 items in part one were examined together as a scale and received a Cronbach alpha value of 0.7881 (N=56). Given the fact that there were only ten items in the scale, in conjunction with the fact that the survey instrument was original to this research topic, this Cronbach alpha value was considered to be acceptable.

Data Collection

After the survey instrument was initiated, validated, and refined into its final form, a letter of transmittal (Appendix B) was written to accompany it. The letter bore the signatures of both researchers.

Earlier, when the population had been identified, the names and addresses of all 88 individuals selected to participate in the study were entered into a WordPerfect 5.1 mail-merge file. When the Western Baptist College letter stock was run through the laser printer, each sheet was personalized with the participant's name and address, as well as his/her specific identification code for purposes of the study. The body of the letter of transmittal was then photocopied onto each personalized letter.

The researchers used a procedure for data collection based upon that which was suggested by Ary, Cheser-Jacobs, and Razavieh (1990), which included an initial mailing of the survey packet, a postcard follow-up, and then a second follow-up

consisting of another survey packet. The returns were then coded as to whether they occurred in the time range of the first, second, or third mailing. However, due to the timing of college semesters and their corresponding finals weeks, the popular six week collection period (14 day mailing cycles) was cut to four and a half weeks (ten day cycles).

On November 12, 1993, 88 survey packets were mailed to study participants, each containing a questionnaire; a self-addressed, stamped envelope; and a personalized letter of transmittal. The initial mailing drew 38 returns constituting a 43% return rate.

On November 24, 1993, postcards (Appendix C) were mailed to the nonrespondents as the first follow-up to the initial mailing. There were six returns received during this period. These added another 7% to the overall response rate which then stood at 50%, representing a total of 44 returns.

On December 3, 1993, second follow-up packets were mailed out which consisted of a questionnaire; a self-addressed, stamped envelope; and a new form letter of transmittal (Appendix D) which personally greeted each participant in the same manner as in the first mailing. December 17, 1993, was chosen as the "cut-off" day for usable returns. The third mailing drew an additional 22 returns, adding another 25% to the overall response rate. On the official "cut-off" date for the study, a total of 66 returns, constituting a 75% response rate, had been received by the researchers.

After coding the returned surveys, it was determined that three of them were not usable. Thus, the usable response rate was 71.6 %. An unusable survey was determined by one of two criterion; first, the potential respondent impeached themselves from consideration by admitting that they did not meet one or more of the delimitations of the study, or second, they left an inappropriate number of unanswered items on their questionnaire.

Data Analysis

Once the sample was established, each questionnaire was inspected and coded by the researchers. Appropriate codes were assigned for the entry of demographic information, and a code was written in for any missing data which were identified. The surveys were key-punched by the researchers into an MS-DOS compatible microcomputer equipped with an Intel 80486sx-25. This took place at the end of December of 1993. All computer manipulation of these data was conducted through the use of the statistical analysis package SPSS/PC+.

As has been stated previously in the **Instrumentation** subsection of this chapter, a reliability was run on the perceptions portion (part one) of the instrument which constituted one scale of 10 items. The resulting Cronbach alpha was a satisfactory 0.7881 (N=56).

The next issue dealt with was that of respondents vs. nonrespondents. Miller and Smith (1983, p. 45) noted that, "Data gathered from self-selected respondents may not represent the opinions of the entire sample or population." They suggested

that "double-dipping" the sample by contacting 10 to 20% of the nonrespondents by telephone, and then using the questionnaire as an interview schedule, would provide the best means to evaluate respondents and nonrespondents. The two groups could then be compared to determine if, where, and how many statistically significant differences existed. If few differences occurred, and the sample was correctly drawn from a representative frame, then the researcher could infer the results to the larger population (Miller & Smith, 1983).

Given that the frame was primarily drawn from an institution member catalog, and secondarily, through contacted departments, no individuals from the population were ever contacted directly. In seeking to identify the population, multiple games of "phone-tag" were played just in contacting the various educational departments for the names of the individuals in each department who met the criteria for selection. This experience, in and of itself, alerted the researchers to the fact that a follow-up phone survey of non-respondents would be expensive, time consuming, and inefficient. In that the researchers desired to infer the results of this study back to the whole population of teacher educators, they employed the procedure that Miller and Smith suggested as the next best alternative. They (Miller & Smith, 1983) noted that:

> Research has shown that late respondents are often similar to nonrespondents.[4] [Superscript 4 referred the reader to four studies on which Miller and Smith based their position.] Thus, one way to estimate the nature of the replies of nonrespondents is through late respondents. ...These two groups can be compared statistically to determine differences between the groups. With late respondents assumed typical of nonrespondents, if no differences are found, then respondents are generalized to the sample (p. 48).

The researchers implemented this suggested technique by comparing the mean scores given by the early respondents (N varying around 37) with those scores given by the late respondents (N varying around 20) through the use of t-tests. All 10 question items on part one of the survey were compared, with only one item showing a statistically significant difference given an alpha of less than or equal to 0.05. While one out of ten is greater than one out of twenty, there were only ten items on which a t-test could possibly be run. This, coupled with the fact that there was a greater than 70% response rate, gave the researchers confidence that there was probably no difference between early respondents and late respondents. It appeared safe to assume, then, that the nonrespondents were not different from the respondents.

The first objective of this study was satisfied by individually analyzing questionnaire items 1 to 10 in terms of all of the respondents, as well as in light of various demographic considerations through the use of tests of multiple mean comparison (t-test and ONE-WAY ANOVA).

The second objective of this study was satisfied by individually analyzing questionnaire items 11 to 20 through frequency tables and histograms. Originally, this data was to have been analyzed in terms of all respondents by using a "Goodness of Fit"χ^2. It was also to have been analyzed in light of various demographic considerations through the use of "Tests of Homogeneity" -- both nominal data, and k-sample case χ^2s. However, the data were such that all too often there were cells without enough "expecteds." Even when cells were collapsed to their smallest possible levels, too many of the tests were nullified by cells with too few "expecteds."

CHAPTER IV. FINDINGS

The findings are summarized in five sections. These sections are organized under the following headings: 1) Respondent Background Information, 2) Objective One, 3) Objective Two, 4) Respondent Characteristics and Their Effect on the Findings, and 5) Major Findings.

Respondent Background Information

A description of the respondents is provided in Table 1. Of the 63 respondents to the survey instrument, 33.3% were from Oregon or western Washington, 28.6% were from the state of California, and 38.1% were from the remaining western states including eastern Washington. Sixty-four percent of the respondents indicated that they had taught at the K-12 grade level for between five and fourteen years, with a mean of 10.89 years. Concerning grade levels, 47.6% taught elementary school, 20.6% taught middle school, 25.4% taught high school, and 6.3% did not specify. Nearly fifty-nine percent of the respondents taught nine years or less in teacher education programs, with an overall mean of 9.10 years. In terms of the highest degree attained, 65.1% possess doctorates, and 34.9% possess master's degrees. Eighty-one percent of the respondents hold valid teaching certificates for the states in which they reside. The respondents reported themselves to be 38.1% male and 55.6% female, with 6.3% failing to specify. (Three of the four unreported gender cases occurred in the Oregon/western Washington geographic region.)

Objective One

The first objective of this study was to determine the perception that teacher educators in Christian institutions have concerning various recognized practices and techniques used in attempting to produce reflective preservice teachers. The respondents believed strongly that all ten reflective practices/techniques listed on the instrument were of value to the aforementioned ends. Table 2 lists the ten methodologies in descending ranked order. Autobiographical works received the lowest value rating with a mean of 5.89 (on a Likert-type scale of 1 to 9) still considered to be of "much" value. Six of the ten listed items ranked as being of "very much" value, with the item "dialoging" receiving a mean of 8.14.

Objective Two

The second objective of this study was to determine the usage level of various recognized techniques and practices for the infusion of reflection in preservice teachers by teacher educators in Christian institutions. Table 3 reports four frequencies of intended usage for each of the ten reflective practices/techniques listed in the instrument. In every case, the category "currently using, and will continue to use" received the highest frequency counts. Figure 1 graphically illustrates the magnitude of differences found in each set of usage selections under every listed reflective practice/technique in the instrument. Figure 2 graphically depicts current and intended future usage levels for each of the ten methodologies. Again, in every case, the anticipated level of usage increased beyond the current level of usage. As a

group, the respondents did not expect to decrease the usage of any one of the ten reflective practices/techniques.

Respondent Characteristics and Their Effect on the Findings

After having met the objectives of the study, the researchers believed that it would be valuable to examine the effects of five respondent characteristics on the findings of the study as said findings related to the aforementioned objectives. Respondent characteristics which were analyzed included: state education agency (SEA) certification status, gender, grade level background, degree attainment, and geographic region. In analyses where more than two levels of the characteristic were examined, the results of the Scheffé post hoc multiple mean comparison test ($\alpha = .05$) was considered.

Certification status

Data in Table 4 compare the perceptions of SEA certified teacher educators with those who were not certified. Based upon this sample, it was generally noted that non-certified teacher educators rated the value of all ten reflective practices/techniques higher than did those who were certified. The one exception was that of "problematizing." However, only two of the methodologies proved to be statistically significantly different. These were "ethnography" and "forums."

Gender

Data in Table 5 compare the perceptions of male teacher educators with female teacher educators. Based upon this sample, males tended to rate all of the reflective methodologies lower than did females. The one notable exception was "case studies." However, the only statistically significant difference occurred in the technique of "journals."

Grade level background

Data in Table 6 compare the perceptions of teacher educators possessing elementary school backgrounds with those possessing high school backgrounds. No trends were noted in how respondents rated the ten reflective practices/techniques; nor were there any statistically significant differences discovered.

Degree attainment

Data in Table 7 compare the perceptions of teacher educators whose highest degree is a master's with those whose highest degree is a doctorate. No trends were noted in how respondents rated the ten reflective practices/techniques; nor were there any statistically significant differences discovered.

Geographic region

Data in Table 8 compare the perceptions of teacher educators in Oregon/western Washington, California, and the western interior states concerning the

ten reflective practices/techniques. The interior states region tended to report the lowest means of all three regions compared. The only statistically significant difference was noted in the practice "autobiographical works." On this item, Oregon/western Washington teacher educators responded with a statistically significantly higher mean than did respondents from the western interior states.

Major Findings

Given the evidence presented in this chapter, the following observations are considered to be the major findings of this study:

1. Respondents indicated that they valued all of the reflective practices/techniques "much" to "very much."
2. Respondents indicated that current usage of any given reflective practice/technique exceeds non-usage of the same for 80% of the reflective methodologies studied.
3. Respondents indicated that future usage of any given reflective practice/technique is anticipated to exceed non-usage of the same for 100% of the reflective methodologies studied.
4. Respondents indicated that usage levels were expected to increase for every one of the reflective methodologies studied.
5. Although only the items "ethnography" and "forums" showed statistically significant differences in means, nine of ten means were

lower for SEA certified than non-certified respondents on the value of the reflective methodologies.

6. SEA certified respondents rated the value of "ethnography" statistically significantly lower than did their non-certified colleagues.

7. SEA certified respondents rated the value of "forums" statistically significantly lower than did their non-certified counterparts.

8. Although only the item "journals" showed a statistically significant difference in means, it was noted that nine of ten arithmetic means were lower for males than for females on the value of the reflective methodologies.

9. There were no statistically significant differences noted between respondents with elementary education backgrounds and those with high school backgrounds concerning the various reflective practices/techniques studied.

10. There were no statistically significant differences noted between respondents whose highest earned degree was a master's and those whose highest earned degree was a doctorate concerning the various reflective practices/techniques studied.

11. Respondents from the interior states region rated the value of "autobiographical works" statistically significantly lower than did respondents from the Oregon/western Washington region. Other than this, there were no other statistically significant differences noted.

Table 1. Descriptive information about the respondents

Demographic item	Descriptors	Frequency	Percent
U.S. region	Oregon & W. Wash.	21	33.3
	California	18	28.6
	Interior states	24	38.1
		63	100.0
Years of K-12 teaching exper.	00-04	7	11.2
	05-09	23	36.6
	10-14	17	27.0
	15-19	9	14.3
	20-24	5	8.0
	25 or more	2	3.3
		63	100.0
	Mean = 10.89		
	Standard deviation = 6.20		
Level taught	Primary/Elementary	30	47.6
	Middle/Junior High	13	20.6
	High School	16	25.4
	Missing	4	6.3
		63	100.0
Years of college teaching exper.	00-04	22	34.8
	05-09	15	23.8
	10-14	9	14.3
	15-19	9	14.3
	20-24	5	8.0
	25 or more	2	3.2
	Missing	1	1.6
		63	100.0
	Mean = 9.10		
	Standard deviation = 7.16		
Highest degree attained	Master's	22	34.9
	Doctorate	41	65.1
		63	100.0
Year degree was conferred	1961-65	2	3.2
	1966-70	2	3.2
	1971-75	7	11.2
	1976-80	7	11.2
	1981-85	17	27.2
	1986-90	12	19.0
	1991-93	4	6.4
	Missing	12	19.0
		63	100.0

Table 1. Continued

Demographic item	Descriptors	Frequency	Percent
Year degree was conferred (cont.)	Mean = 1981.8 Standard deviation = 7.38 years		
Teaching certificate	Yes	51	81.0
	No	12	19.0
		63	100.0
Gender	Male	24	38.1
	Female	35	55.6
	Missing	4	6.3
		63	100.0

Table 2. Selected practices and techniques of reflective teaching rated as to their value for infusion into preservice teacher philosophy by teacher educators

R[a]	Reflective Practice/Technique	n[b]	Mean[c]	SD[d]
1	Dialoging	63	8.14	1.10
2	Critical inquiry	63	7.82	1.29
3	Portfolios	63	7.81	1.75
4	Journals	63	7.67	1.67
5	Problematizing	62	7.53	1.66
6	Curriculum analysis & mod.	62	7.45	1.65
7	Case studies	63	6.95	1.66
8	Ethnography	62	6.13	2.01
9	Forums	61	6.02	1.95
10	Autobiographical works	63	5.89	1.93

[a]Ranked order.

[b]Number of observations.

[c]Scale values: 5.81-7.40 = Much
7.41-9.00 = Very much

[d]Standard deviation.

Table 3. Reflective practices/techniques broken down by categories of intended respondent usage

Reflective prac.	Item descriptors	Frequency	Percent
Autobiographical works	Using-will continue	33	52.4
	Using-will not cont.	0	0.0
	Not using-plan to	7	11.1
	Not using-will not	23	36.5
	Missing	0	0.0
		63	100.0
Case Studies	Using-will continue	41	65.1
	Using-will not cont.	0	0.0
	Not using-plan to	11	17.5
	Not using-will not	11	17.5
	Missing	0	0.0
		63	100.0
Critical Inquiry	Using-will continue	56	88.9
	Using-will not cont.	0	0.0
	Not using-plan to	4	6.3
	Not using-will not	3	4.8
	Missing	0	0.0
		63	100.0
Curriculum analysis & modif.	Using-will continue	43	68.3
	Using-will not cont.	1	1.6
	Not using-plan to	6	9.5
	Not using-will not	11	17.5
	Missing	2	3.2
		63	100.0
Dialoging	Using-will continue	55	87.3
	Using-will not cont.	1	1.6
	Not using-plan to	4	6.3
	Not using-will not	3	4.8
	Missing	0	0.0
		63	100.0
Ethnography	Using-will continue	24	38.1
	Using-will not cont.	0	0.0
	Not using-plan to	15	23.8
	Not using-will not	23	36.5
	Missing	1	1.6
		63	100.0

Table 3. Continued

Reflective prac.	Item descriptors	Frequency	Percent
Forums	Using-will continue	25	39.7
	Using-will not cont.	1	1.6
	Not using-plan to	15	23.8
	Not using-will not	22	34.9
	Missing	0	0.0
		63	100.0
Journals	Using-will continue	54	85.7
	Using-will not cont.	1	1.6
	Not using-plan to	2	3.2
	Not using-will not	6	9.5
	Missing	0	0.0
		63	100.0
Portfolios	Using-will continue	50	79.4
	Using-will not cont.	0	0.0
	Not using-plan to	9	14.3
	Not using-will not	4	6.3
	Missing	0	0.0
		63	100.0
Problematizing	Using-will continue	44	69.8
	Using-will not cont.	1	1.6
	Not using-plan to	9	14.3
	Not using-will not	7	11.1
	Missing	2	3.2
		63	100.0

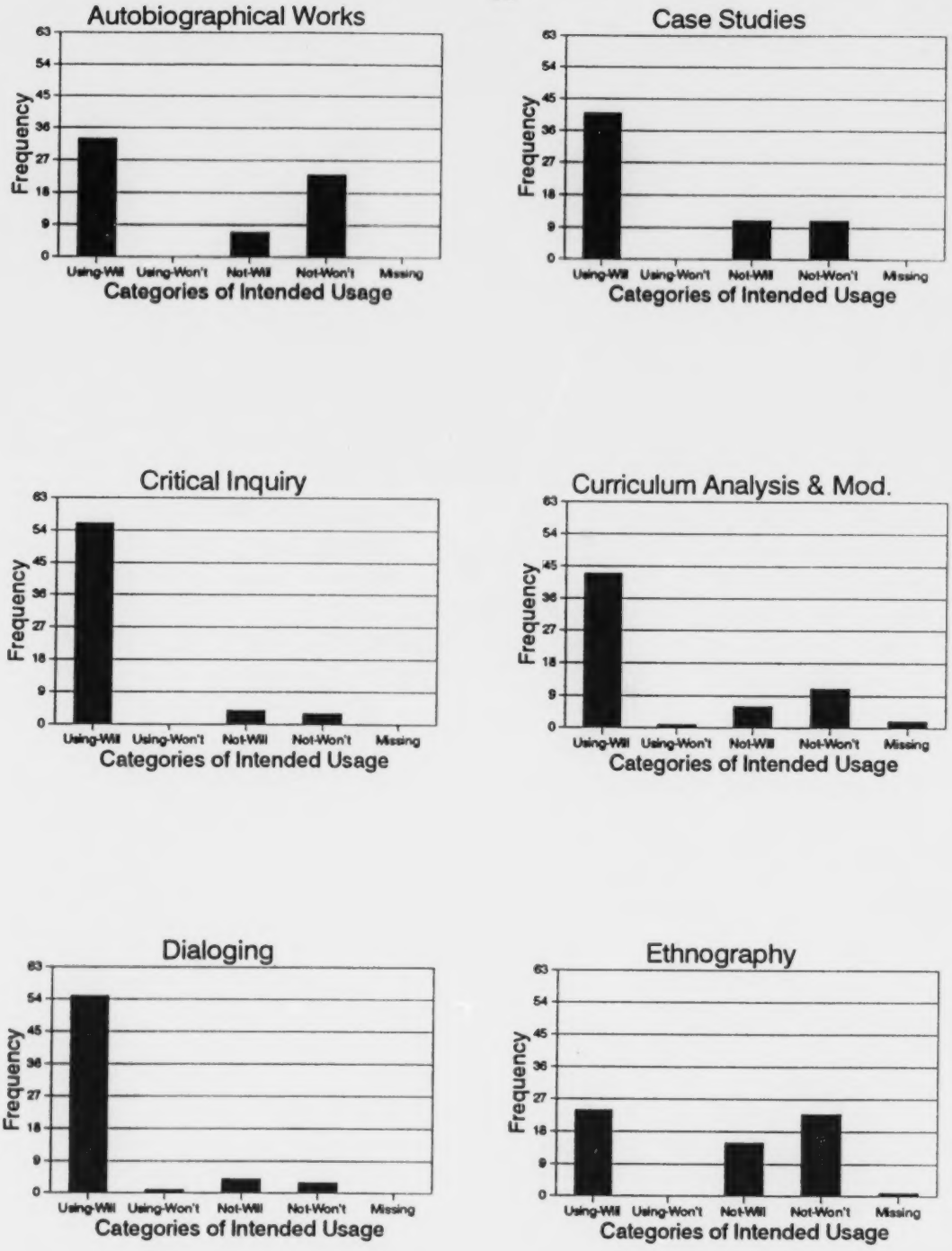
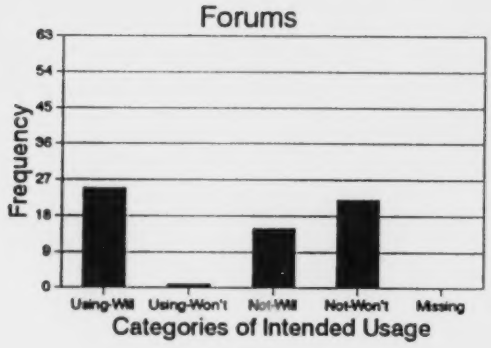
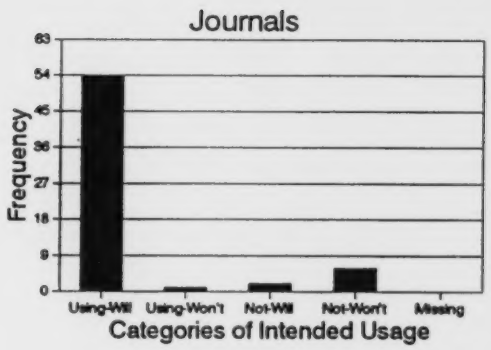
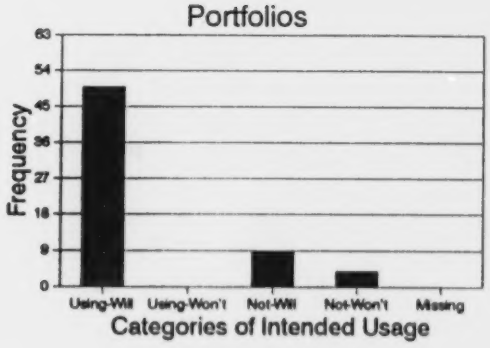


Figure 1. Reflective practices/techniques broken down by categories of intended respondent usage. (1) Using-will continue to use (2) Using-will not continue to use (3) Not using- plan to use (4) Not using-will not use







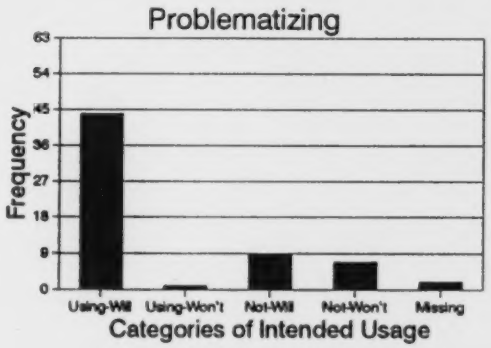


Figure 1. Continued

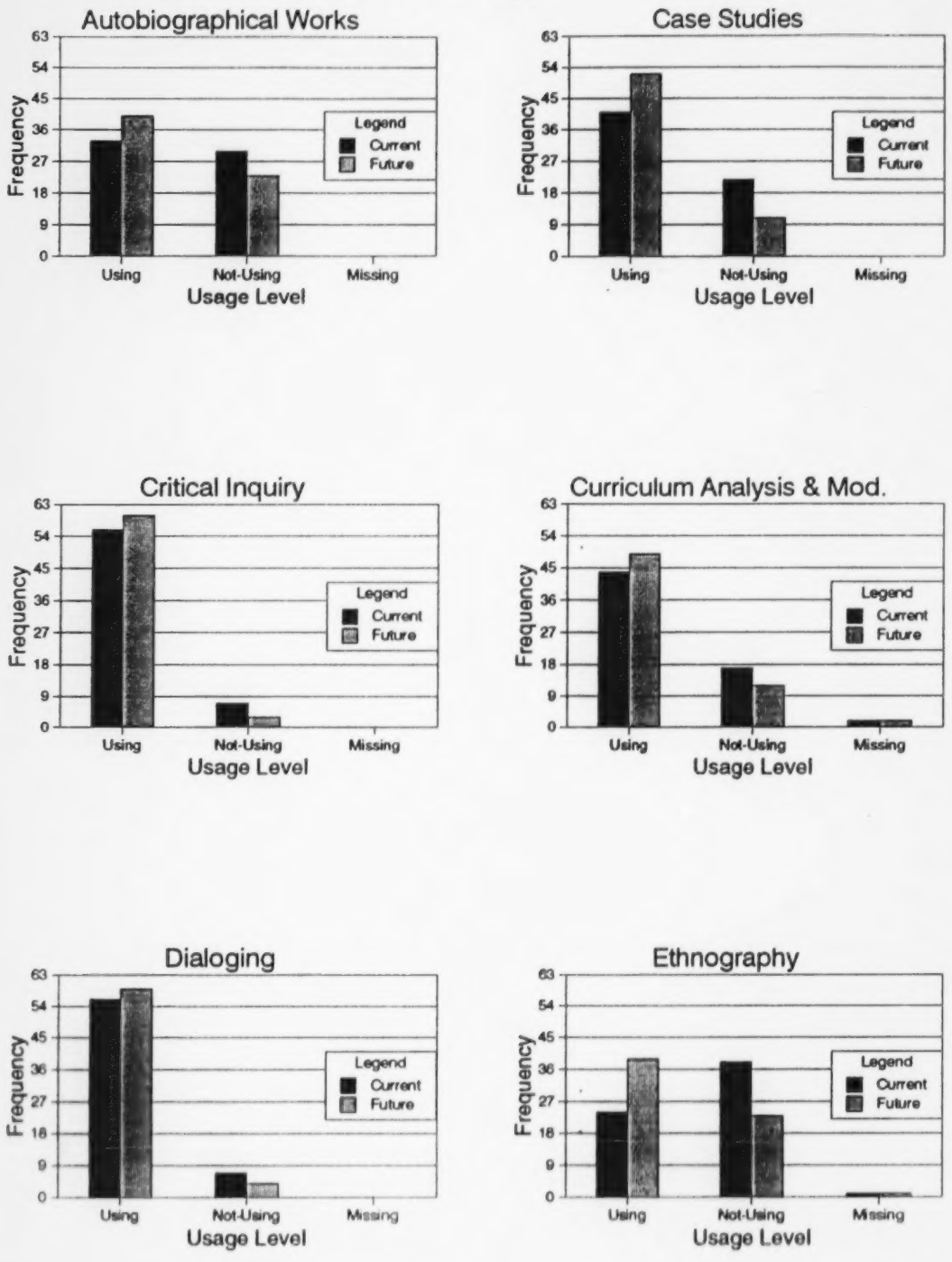
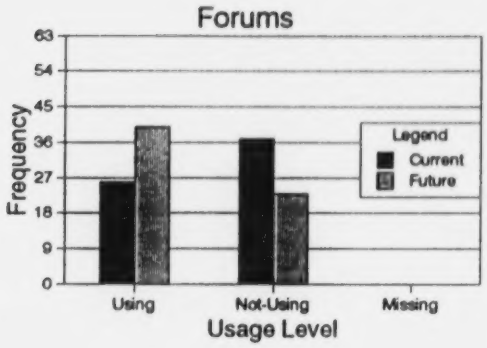
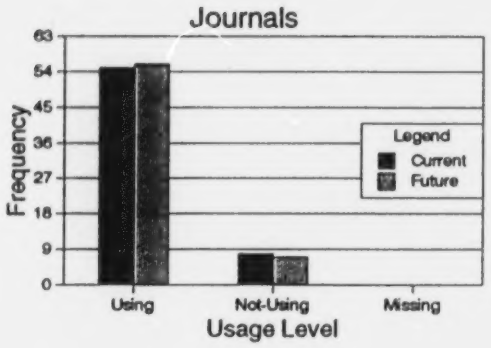
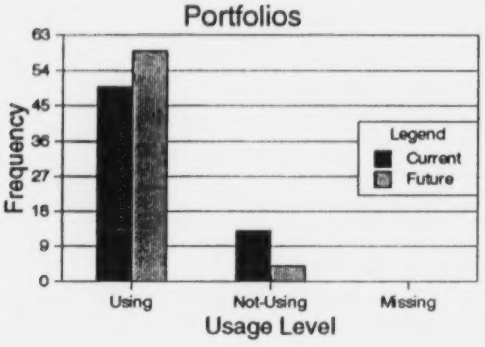


Figure 2. Reflective practices/techniques broken down by current and intended future usage levels as reported by respondents







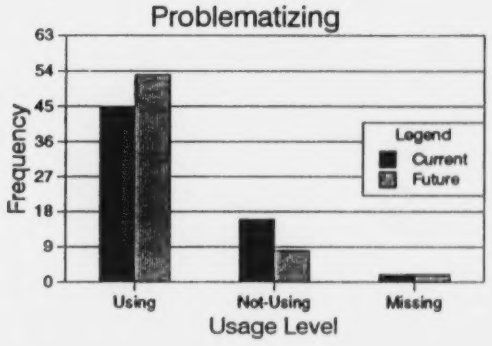


Figure 2. Continued

Table 4. The perceived value of the reflective practices/ techniques as compared by teacher educators, grouped by certified and non-certified status

Reflective practices/ techniques		SEA[a] Certified	Non-Certified	t-Value	t-Prob.
Autobiograph. works	M[b]	5.69	6.75	-1.75	.085
	SD[c]	1.74	2.49		
	N[d]	51	12		
Case studies		6.86	7.33	-0.68	.506
		1.50	2.27		
		51	12		
Critical inquiry		7.82	7.83	-0.02	.981
		1.32	1.19		
		51	12		
Curriculum anal/mod		7.38	7.75	-0.70	.489
		1.64	1.71		
		50	12		
Dialoging		8.04	8.58	-1.55	.126
		1.17	0.67		
		51	12		
Ethnography		5.84	7.33	-2.40	.020
		1.91	2.06		
		50	12		

[a]State education agency

[b]Mean; Scale values:
1.00-2.60 = None
2.61-4.20 = Little
4.21-5.80 = Some
5.81-7.40 = Much
7.41-9.00 = Very much

[c]Standard deviation

[d]Number of observations

Table 4. Continued

Reflective practices/ techniques	SEA[a] Certified	Non-Certified	t-Value	t-Prob.
Forums	5.70	7.45	-2.85	.006
	1.81	2.02		
	50	11		
Journals	7.59	8.00	-0.77	.445
	1.66	1.71		
	51	12		
Portfolios	7.75	8.08	-0.60	.551
	1.71	1.97		
	51	12		
Problematizing	7.60	7.25	0.46	.651
	1.40	2.53		
	50	12		

Table 5. The perceived value of the reflective practices/ techniques as compared by teacher educators, grouped by gender

Reflective practices/ techniques		Male	Female	t-Value	t-Prob.
Autobiograph. works	M[a]	5.46	6.14	-1.31	.194
	SD[b]	1.77	2.09		
	N[c]	24	35		
Case studies		7.08	6.66	0.98	.332
		1.61	1.66		
		24	35		
Critical inquiry		7.71	7.91	-0.59	.555
		1.43	1.22		
		24	35		
Curriculum anal/mod		7.25	7.74	-1.18	.243
		1.80	1.33		
		24	34		
Dialoging		7.92	8.31	-1.36	.179
		1.28	0.96		
		24	35		
Ethnography		5.92	6.21	-0.52	.603
		2.30	1.90		
		24	34		

[a]Mean; Scale values:
1.00-2.60 = None
2.61-4.20 = Little
4.21-5.80 = Some
5.81-7.40 = Much
7.41-9.00 = Very much

[b]Standard deviation

[c]Number of observations

Table 5. Continued

Reflective practices/ techniques	Male	Female	t-Value	t-Prob.
Forums	5.87	6.15	-0.52	.602
	2.09	1.87		
	24	33		
Journals	6.92	8.17	-2.63	.013
	2.14	1.12		
	24	35		
Portfolios	7.42	8.06	-1.23	.227
	2.30	1.33		
	24	35		
Problematizing	7.39	7.60	-0.47	.643
	1.72	1.63		
	23	35		

Table 6. The perceived value of the reflective practices/ techniques as compared by teacher educators, grouped by elementary and secondary backgrounds

Reflective practices/ techniques		Pri/Elm	HS	t-Value	t-Prob.
Autobiograph. works	M[a]	6.20	6.06	0.22	.826
	SD[b]	1.86	2.26		
	N[c]	30	16		
Case studies		6.67	7.06	-0.71	.480
		1.52	2.23		
		30	16		
Critical inquiry		7.70	7.81	-0.26	.795
		1.26	1.60		
		30	16		
Curriculum anal/mod		7.93	7.06	1.59	.127
		1.13	2.02		
		29	16		
Dialoging		8.13	8.19	-0.16	.875
		1.01	1.28		
		30	16		
Ethnography		6.69	6.06	1.12	.269
		1.63	2.08		
		29	16		

[a]Mean; Scale values: 1.00-2.60 = None
2.61-4.20 = Little
4.21-5.80 = Some
5.81-7.40 = Much
7.41-9.00 = Very much

[b]Standard deviation

[c]Number of observations

Table 6. Continued

Reflective practices/ techniques	Pri/Elm	HS	t-Value	t-Prob.
Forums	6.00 1.59 28	6.81 2.14 16	-1.44	.158
Journals	7.80 1.49 30	7.62 1.86 16	0.35	.730
Portfolios	7.90 1.49 30	7.56 2.34 16	0.60	.553
Problematizing	7.20 1.86 30	8.00 1.37 16	-1.51	.138

Table 7. The perceived value of the reflective practices/ techniques as compared by teacher educators, grouped by master's and doctorate degree levels

Reflective practices/ techniques		Master's	Doctorate	t-Value	t-Prob.
Autobiograph. works	M[a]	5.95	5.85	0.20	.845
	SD[b]	1.46	2.15		
	N[c]	22	41		
Case studies		6.95	6.95	0.01	.994
		1.25	1.86		
		22	41		
Critical inquiry		7.68	7.90	-0.64	.522
		1.29	1.30		
		22	41		
Curriculum anal/mod		7.50	7.42	0.17	.865
		1.30	1.82		
		22	40		
Dialoging		7.95	8.24	-0.99	.326
		1.17	1.07		
		22	41		
Ethnography		5.64	6.40	-1.44	.154
		1.56	2.19		
		22	40		

[a]Mean; Scale values: 1.00-2.60 = None
2.61-4.20 = Little
4.21-5.80 = Some
5.81-7.40 = Much
7.41-9.00 = Very much

[b]Standard deviation

[c]Number of observations

Table 7. Continued

Reflective practices/ techniques	Master's	Doctorate	t-Value	t-Prob.
Forums	5.77 1.48 22	6.15 2.18 39	-0.81	.421
Journals	7.73 1.42 22	7.63 1.80 41	0.21	.834
Portfolios	8.27 1.12 22	7.56 1.97 41	1.82	.073
Problematizing	7.77 1.07 22	7.40 1.90 40	0.99	.327

Table 8. The perceived value of the reflective practices/techniques as compared by teacher educators, grouped according to geographical regions in the western U.S.

Reflective practice/ technique		Groups OR & W. WA (1)	CA (2)	Interior States (3)	F-Value	F-Prob.
Autobiograph. works	M[a]	6.62	6.11	5.08	4.10	.021
	SD[b]	1.36	2.11	1.98	1>3[d]	
	N[c]	21	18	24		
Case studies		7.19	7.17	6.58	0.96	.390
		1.54	1.42	1.91		
		21	18	24		
Critical inquiry		7.86	8.06	7.62	0.57	.566
		1.24	1.16	1.44		
		21	18	24		

[a]Mean; Scale values:
1.00-2.60 = None
2.61-4.20 = Little
4.21-5.80 = Some
5.81-7.40 = Much
7.41-9.00 = Very much

[b]Standard deviation

[c]Number of observations

[d]Differences determined by Scheffé at the .05 level of significance.

Table 8. Continued

Reflective practice/ technique	Groups: OR & W. WA (1)	CA (2)	Interior States (3)	F-Value	F-Prob.
Curriculum anal/mod	7.76 1.34 21	7.06 1.89 18	7.48 1.70 23	0.89	.415
Dialoging	8.33 0.91 21	8.33 0.91 18	7.83 1.34 24	1.55	.221
Ethnography	6.14 1.71 21	6.17 2.33 18	6.09 2.09 23	0.01	.992
Forums	6.19 1.75 21	5.94 2.36 18	5.91 1.85 22	0.12	.883
Journals	7.62 1.56 21	8.00 1.91 18	7.46 1.59 24	0.55	.581
Portfolios	8.10 1.30 21	8.00 1.71 18	7.42 2.08 24	0.99	.377
Problematizing	7.86 1.15 21	7.53 1.74 17	7.25 1.96 24	0.75	.479

CHAPTER V. DISCUSSION

The goal of this chapter is to discuss the study in its entirety, including conclusions and recommendations garnered from the study. This will be done in detail under the following headings: purpose and objectives, the research process in review, discussion of the major findings, conclusions, recommendations, and future research.

Purpose and Objectives

The purpose of this study was to discover which reflective practices/techniques are valued by Christian teacher educators, and to what extent those practices/ techniques are used in teacher education programs. The investigators' intent was to document baseline data from which further discussion and research concerning infusion of reflective practices in Christian college teacher education could be built.

Considering the absence of baseline data, two major objectives were identified for this study :

1. To determine the perception that teacher educators in Christian institutions have concerning various recognized practices and techniques used in attempting to produce reflective preservice teachers.
2. To determine the usage level of various recognized techniques and practices for the infusion of reflection in preservice teachers by teacher educators in Christian institutions.

The Research Process in Review

The research process began with identification of the population for the study. The researchers used Peterson's Guides (1992), Choose a Christian College. This was appropriate since the intent of the study was to document the valuing and usage of reflective practices in Christian college teacher education programs rather than education programs in general.

Individual education departments were contacted by telephone to obtain names and addresses for faculty currently teaching at least three-fourths of full time equivalence. Faculty teaching less than three-fourths of full time were not contacted in an effort to collect the purest possible sample of those who are responsible for the planning and implementation of Christian teacher education programs.

It was deemed important to identify specific names to increase the ability to personalize correspondence, and thence to increase the return rate of usable questionnaires. The response rate of 75% overall would seem to indicate that this technique was successful.

The survey instrument was constructed after reviewing related literature on practices considered critical to the development of reflective teachers. The survey design was checked by six educators considered by the researchers to be knowledgeable in the field of teacher education. Each made suggestions and comments that helped refine the instrument.

Two demographic categories that could have been included, and which may have enhanced the study, were age of the respondents and the last year of experience

in K-12 education. The researchers found that these categories might have been useful in interpreting differences in perceptions of the value of the ten practices/techniques addressed in the study.

The researchers considered the possibility of expanding the list of reflective practices/techniques that were included in the survey instrument. They determined that a manageable size was prudent and imperative given the time frame of the study. An expanded study could be undertaken in the future to obtain more data on practices/techniques that are possibly being used to a lesser degree in teacher education programs.

The researchers also recognize that a pretest of the instrument should have been undertaken. Considering the time frame encompassing both the Thanksgiving and Christmas breaks, this was not feasible. The researchers were confident that the largely positive response of the six reviewers verified the validity of the instrument. The survey design appears to be appropriate for the intended purposes.

A possible weakness in the study could be construed in the return cycle used for the survey instrument. Recognizing the difficulty of receiving responses during final examination week and Christmas break, the researchers shortened the mailing cycles of the collection process in order to accommodate the participants' schedules. The collection period also included Thanksgiving vacation. Consequently, the response rate might have been higher at another point in the academic year.

The data concerning usage levels of the reflective practices/techniques returned from the respondents yielded results which were entirely unexpected by the

investigators. The hypothesis held by the researchers was that data would be somewhat evenly distributed among the four usage categories of; (1) currently using, and will continue to use, (2) currently using, and plan to discontinue, (3) currently not using, but plan to use, or (4) currently not using, and plan not to use. There were no clues as to current levels of usage indicated in the literature. Several authors, including Susan Adler (1991), were not even sure that these practices were in use at all in teacher education programs. The researchers expected a broader distribution over the four categories.

As a result of the unanticipated distribution of the data, several planned tests, including the Chi-square, were not performed. This led the researchers to make greater use of frequency tables and graphic charts than was originally intended. The researchers were able to make appropriate use of t-tests and ANOVAs concerning the perceived value of the practices/techniques.

The researchers point out that the results of this study are confined to western United States Christian college teacher education programs, and are not intended to be generalized to other geographic regions or to secular teacher education programs.

Discussion of the Major Findings

The researchers noted eleven major findings that resulted from this study. This section will attempt to address possible implications and/or ramifications related to these points.

1. Respondents indicated that they valued all ten of the reflective practices/techniques "much" to "very much." This may not be surprising considering the volume of literature touting the importance of reflective practice for teachers. There is also a considerable body of literature addressing teacher education programs specifically. Reflective practice is a current topic that is looked on favorably by many in the education community. This response is a little disconcerting, however, considering the lack of research on the efficacy of reflective practice, either in the K-12 classroom or in teacher education programs.

Some of the highly rated response to perceived value may also be a result of the loose definitions for the reflective practices/techniques. Again, Ross (1990) noted that there may never be clear definitions for these practices, or even for what constitutes reflective practice itself.

2. Respondents indicated that current usage of any given reflective practice/technique exceeds non-usage of the same for 80% of the reflective methodologies studied. Reasons for this result may be similar to those given for the first major finding, although this study may be one of the first to document this finding. The consumers of the American education system are expecting better things in the future from teachers and students. Believing that reflective practice may be the current remedy for whatever it is that is afflicting the system, educators of future teachers are generally willing to try what is recommended by prestigious writers and researchers.

3. Respondents indicated that future usage of any given reflective practice/technique is anticipated to exceed non-usage of the same for 100% of the reflective methodologies studied. Once again, the rationale for the first two major findings of this study may also apply to this result. Analysis of Figure 2 gives a clear picture of this finding.

4. Respondents indicated that usage levels were expected to increase for every one of the reflective methodologies studied. Future usage will increase to more than half of the respondents for all ten practices/techniques and to more than three-fourths of the respondents for seven of the ten practices/techniques. This may be a result of programmatic successes at individual institutions, indicating that increased infusion of reflective methodologies is advisable. More research needs to be done, and findings shared, as to which of these practices/techniques, if any, are valuable for preservice teachers.

5. SEA certified respondents tended to rate lower the value of the studied reflective methodologies than did their non-certified counterparts. This trend was noted in all items with the exception of "problematizing." However, there were statistically significant differences only for "ethnographies" and "forums."

In an attempt to explain these differences, the researchers examined the demographic data by sorting the respondents into certified and non-certified categories. The only notable difference was in the category of highest degree attained. Forty-one percent of the certified respondents hold master's degrees, with 59% holding doctorates. In the non-certified category, 8% hold master's degrees,

while 92% hold doctorates. As there was no notable difference in valuing by degree held, this did not seem to explain the difference found in certified versus non-certified.

The researchers explored the possibility of the non-certified respondents being further removed from K-12 classroom experience, and therefore being less skeptical of a relatively new practice. This thought could not be pursued, as last year of K-12 experience was not included in the demographic inquiries.

6. SEA certified respondents rated the value of "ethnography" statistically significantly lower than did their non-certified colleagues. Possibly this methodology is seen as a part of a larger practice/technique such as "journaling." Certified respondents may consider this to be a non-essential activity that adds to time and paperwork for teachers, both preservice and inservice.

7. SEA certified respondents rated the value of "forums" statistically significantly lower than did their non-certified counterparts. The researchers could pose no viable explanation for this result.

8. Male respondents tended to rate the value of the reflective methodologies studied lower than did their female colleagues. This trend was noted in all methodologies with the exception of "case studies." However, the only statistically significant difference was noted in the practice of "journaling." In the literature review conducted by the researchers, only the study by Korthagen and Wubbels (1991, p. 18) addressed gender differences in response to reflective practice. They noted that, "Female student teachers reflect more on their relationships with fellow

students and less on subject matter (mathematics) than men." Possibly, the hypothesized activity of the left-brain male (Joy, 1989) lends itself less to the valuing of reflective practice than does that of the right-brain female. If true, this could lead to resistance toward reflective practices/techniques by male student teachers, causing negative experiences in the teacher education program. Concerning the statistically significant difference found in "journaling," this is probably the most introspective of the reflective practices/techniques examined in the study, thus possibly the most difficult for males to engage in.

9. There were no statistically significant differences noted between respondents with elementary education backgrounds and those with high school backgrounds concerning the various reflective practices/techniques studied. The researchers would suggest that current experiences may be more important than prior experiences. With distance from the K-12 experience (the college teaching experience mean being equal to about 10 years) there would seem to be a possible blending of thought. Over time, teaming in the department may lead to homogeneity of thought on the process of educating future teachers.

10. There were no statistically significant differences noted between respondents whose highest earned degree was a master's and those whose highest earned degree was a doctorate concerning the various reflective practices/techniques studied. Again, homogeneity may be achieved from common experience in an education department possessing a relatively small number of Christian college faculty.

11. Respondents from the interior states region rated the value of "autobiographical works" statistically significantly lower than did respondents from the Oregon/western Washington region. Other than this, there were no other statistically significant differences noted by region, although the interior states tended to rate the value of the reflective practices/techniques lower in all categories except curriculum analysis/modification.

Again, in attempting to account for this result, the researchers sorted the demographic data by region, and then compared Oregon/western Washington with the interior states. Two interesting facts were noted. The category of "highest degree held" was divided in Oregon/western Washington as 52% masters and 48% doctorates. On the other hand, the interior states were divided as 25% masters and 75% doctorates. By gender, Oregon/western Washington had five males and 13 females, with 3 non-respondents, while the interior states consisted of 10 males and 14 females. Again, "autobiographical works" are self-reflective and relational, and the males may be more likely to resist these methodologies.

Conclusions

The target audience of this study consists of the colleges of the Christian College Coalition that operate teacher education programs. The conclusions that were drawn from this study pertain in the most part to such programs:

1. Christian college teacher educators favor reflective practices/techniques for preservice teachers in their programs.

2. Christian college educators will increase their usage of reflective practices/techniques in their programs in the future.

3. More Christian college teacher educators will use reflective methodologies than will not use those methodologies in the future.

4. There was no difference noted in the ratings of those educators whose background was in elementary education as opposed to those from secondary experiences.

5. There was no difference noted in the ratings of those teacher educators holding masters degrees as compared to those holding doctorates.

Recommendations

As with the conclusions garnered from this study, the researchers make the following recommendations primarily to Christian college faculty in teacher education programs. Their recommendations are:

1. Education faculty in Christian colleges should encourage reflection on why they value reflection. Faculty encouraging reflective practices for their students should themselves be reflective.

2. Education faculty in Christian colleges should determine what it is about each reflective practice/technique that causes them to value it.

3. A determination should be made as to which methodologies most benefit teachers who have been trained in reflective practice.

4. Given content pressures, Christian college education department faculty need to ascertain how much time should be devoted to infusing reflective methodologies.

5. Faculties should devise an overall strategy for infusing reflective methodologies, rather than practicing haphazard methods.

6. Levels of infusion of reflective practices/techniques should be appropriately considered in light of the needs of any given geographical region.

Future Research

1. The investigators suggest that future research be carried out at a national level with Christian College Coalition member institutions to ascertain perceived value and usage levels of reflective practices/techniques. Some regional differences were noted, and there could be others, given a larger scope for a study.

2. Research should also be done with practicing teachers who have participated in teacher education programs that promote reflective methodologies. Answers to the questions of continued use and efficacy can only be found in this manner. Studies could consider whether or not these teachers are more successful in their classrooms, and whether or not their students are more successful than those students taught by non-reflective teachers.

3. Researchers may want to consider which reflective methodologies are the most useful and what makes them so. Additionally, the question might be asked,

"Which student teachers will benefit most from the application of reflective practices/techniques in their teacher education programs?"

4. As Christians, teacher educators need to consider which of these methodologies are viable for their programs. Are any of these practices/techniques contrary to their Christian beliefs and principles? Robert Tremmel (1993), in an article titled "Zen and the Art of Reflective Practice in Teacher Education," advocates the use of the Zen Buddhist practice of "mindfulness," along with other techniques, in teacher education programs. Christian teacher educators need to be mindful of worldviews other than their own that creep into Christian practice.

5. Finally, research needs to be extended to secular college teacher education programs. There are many things not known about the infusion of reflective practice in teacher preparation programs. The need for research is clear.

CHAPTER VI. SUMMARY

The intent of this study was to answer two basic questions about the infusion of reflective practice into Christian college teacher education programs. The first question addressed the perceived value of reflective practices/techniques in preservice teacher preparation, and the second question investigated the current usage levels of those same reflective practices/techniques. The researchers, through a review of available literature, determined that the following ten reflective practices/techniques were a viable, representative sample of reflective methodologies. Those practices/techniques were: autobiography, case studies, critical inquiry, curriculum analysis and modification, dialoging, ethnography, forums, journals, portfolios, and problematizing.

In the literature review, the researchers discovered that reflective methodologies were highly regarded practices by a number of prominent writers, including Donald Schon, Kenneth Zeichner, and others. Reflective teachers were thought to be better at developing interpersonal relationships with students, better at adjusting teaching methods to match student needs, and better at solving problems that arise in the classroom. Distancing oneself from a problem and viewing the problem from multiple perspectives seemed to be one of the most important aspects of reflective practice. In the interests of improving teaching techniques, developing rationales for common educational practices, and considering the moral and ethical ramifications of teaching, reflective methodologies were deemed to be of utmost importance.

Considering the above mentioned reflective practices/techniques, the researchers developed a survey instrument to collect data that would answer the two key questions. Surveys were then mailed to 88 individual faculty members from Christian College Coalition member colleges and universities that maintain accredited teacher education programs. The recipients were asked to rate perceived value and usage levels of the ten aforementioned reflective practices/techniques, and then to respond to a variety of demographic questions. The final return rate of usable surveys was 71.6 percent.

The researchers began analysis of the data by tabulating frequencies for the demographic data. They then applied t-tests to uncover significant differences in perceptions among various groups of respondents. The researchers also examined usage levels in both table and chart form to highlight the relationships between the various categories.

Several general trends were found in the responses to the questioning. Respondents indicated that they valued all of the reflective practices/techniques "much" to "very much," and current usage of the practices/techniques exceeded non-usage for 80% of the methodologies studied. Respondents also indicated that they anticipated an increase in the usage level of each of the methodologies in the future. Other general trends included the tendency for state education agency certified respondents to rate lower the value of the studied reflective methodologies than did their non-certified counterparts. Male respondents tended to rate the value of the reflective methodologies lower than did the female respondents. The final general

trend was that the respondents from the interior states tended to rate the value of the practices/techniques lower than did their counterparts from the other regions in the study.

Statistically significant findings included lower ratings from certified than non-certified respondents on the value of "ethnography." Certified respondents also rated the value of "forums" significantly lower than did their non-certified counterparts. The value of "journals" was rated statistically significantly lower by male respondents than by female respondents. The last statistically significant finding was that respondents from the interior states region rated "autobiographical works" lower than did respondents from the Oregon/western Washington region. No other statistically significant results were noted.

From these findings the researchers drew the following conclusions pertaining to Christian college teacher training programs: Educators in Christian college teacher preparation programs generally favor reflective practices/techniques. Usage of reflective practices/techniques will increase in Christian college teacher education programs in the future. More educators from Christian college programs will use than not use these methodologies in their teacher preparation programs. There was no difference found in value ratings of reflective practices/techniques by those with elementary as opposed to secondary education experience. Nor was there any difference found in ratings by those educators holding masters degrees as opposed to those holding doctorates. Given the studied population, these conclusions may not be generalizable to the teacher-educator population at large.

In light of these conclusions, the researchers made the following recommendations pertaining to Christian college preservice teacher educators. Faculties which endorse reflective practice should model reflective behaviors, and examine why they consider these methodologies to be of value. A determination should be made regarding which reflective practices/techniques are the most valuable for continued growth and development of inservice teachers. Teacher education program faculties that endorse reflective practice should first determine their optimum level of reflective infusion based upon overall program content demands, and then second, work to develop a formal plan for infusing reflective practices into their preservice teacher training.

Finally, future research on reflective practices/techniques might investigate the following questions. How do the attitudes toward reflective/practices and the usage of reflective practices/techniques compare on a nationwide basis to those found in this study? Are teachers who are trained using reflective practices/techniques more successful in their classrooms? Which reflective methodologies are the most useful, and what makes them so? Are the same methodologies useful for the same student teachers? Do Christian college teacher educators reflect on which, if any, of these methodologies are in opposition to their Christian worldview? Finally, will any of the findings of this study generalize to secular teacher education programs?

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APPENDICES

Appendix A. Survey Instrument

WESTERN BAPTIST COLLEGE

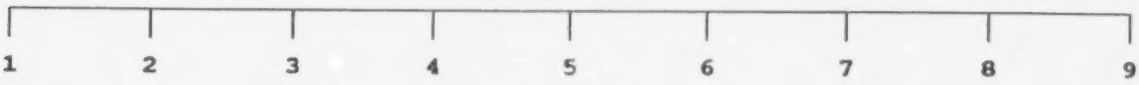
REFLECTIVE INFUSION IN CHRISTIAN COLLEGE TEACHER PREPARATION

Please read this section before continuing! The following questions will seek to determine your perceived value for, and your level of usage concerning ten techniques which are commonly mentioned in the research literature as practices which tend to foster reflection in preservice teachers during their training. When testing this instrument, it became quite evident that individual education professors often differed in their understanding and definitions of these terms. In the interest of clarity, we offer the following list of practices which will be examined in this questionnaire, and an accompanying set of definitions. We ask you to respond to the survey items dealing with these ten selected practices/techniques based upon these definitions. This has been done so as to minimize confusion and ambiguity. The definitions listed here may not perfectly align with your own, but for the sake of providing a common foundation for all of the respondents, please use the listed definitions when responding to each survey item. Thank you!

• **Autobiographical works**	Where students write detailed histories about themselves, and then tie these works back to how they see themselves as both learners and teachers.
• **Case studies**	Where students read and analyze a series of well documented incidents concerning the solving, by others, of real-world educational problems.
• **Critical inquiry**	Where students are encouraged to methodically question actions, practices, approaches, etc... which are otherwise taken for granted as status quo.
• **Curriculum analysis & modification**	Where students apply recognized curriculum analysis strategies in order to assess quality and potential effectiveness. Curricula is then modified as necessary.
• **Dialoging**	Where student teachers participate in scheduled sessions with either their cooperating and/or supervising teachers to discuss problems, strategies, etc.
• **Ethnography**	Where students write "biographies" of the school settings where they do their teaching practica so as to understand why the school is the way it is.
• **Forums**	Where students conduct panel discussions dealing with any issue that relates back to the profession of education.
• **Journals**	Where students write regular, ongoing entries into a log reflecting on the events which occur during their teaching practica.
• **Portfolios**	Where students provide evidence of professional competencies through a variety of mediums (e.g. paper, video, diskette, etc.).
• **Problematizing**	Where students define and analyze specific problems in their teaching setting, and are then required to develop solutions for those problems.

Please continue on the next page!

For questions 1-10, please fill in the blank with a number between 1 and 9 which most closely represents your level of agreement with the question item posed. When responding to the items below, please use the following scale:



Example: ___ Questioning

PART I - PERCEPTIONS OF PRACTICE/TECHNIQUE VALIDITY

To what level do you agree that the following practices/techniques are valid in terms of contributing to preservice teachers' abilities to become reflective practitioners?

1. ___ Autobiographical works
2. ___ Case studies
3. ___ Critical inquiry
4. ___ Curriculum analysis & modification
5. ___ Dialoging
6. ___ Ethnography
7. ___ Forums
8. ___ Journals
9. ___ Portfolios
10. ___ Problematizing

On the next two pages, you will notice that survey items 11 to 20 are the same practices which were used above in PART I. This time, however, please indicate at what level these practices/techniques are present in one or more of the classes you teach at your institution. This portion of the instrument seeks to determine whether the listed practices/techniques are currently being used in teacher preparation programs, as well as to determine what your intention for these practices/techniques is in the near future. (Near future is defined as "within the next calendar year.") Your four choices for each of the ten practices/techniques are:

(1) You are currently using this practice, and plan to continue to use it.
(2) You are currently using this practice, but plan to discontinue its use.
(3) You are not currently using this practice, but soon plan to infuse it.
(4) You are not currently using this practice, and you don't plan to infuse it.

Please circle only one response per survey item.

Please continue on the next page!

PART II - PERCEPTIONS OF CURRENT & FUTURE USE

Which <u>one</u> of the response selections listed with <u>each</u> reflective practice/technique best describes your perceived level of use of that practice/technique in one or more of the courses you teach.

11. AUTOBIOGRAPHICAL WORKS:

1 - Currently using, and will continue to use **2 - Currently using, and plan to discontinue** **3 - Currently not using, but plan to use** **4 - Currently not using, and plan not to use**

12. CASE STUDIES:

1 - Currently using, and will continue to use **2 - Currently using, and plan to discontinue** **3 - Currently not using, but plan to use** **4 - Currently not using, and plan not to use**

13. CRITICAL INQUIRY:

1 - Currently using, and will continue to use **2 - Currently using, and plan to discontinue** **3 - Currently not using, but plan to use** **4 - Currently not using, and plan not to use**

14. CURRICULUM ANALYSIS & MODIFICATION:

1 - Currently using, and will continue to use **2 - Currently using, and plan to discontinue** **3 - Currently not using, but plan to use** **4 - Currently not using, and plan not to use**

15. DIALOGING:

1 - Currently using, and will continue to use **2 - Currently using, and plan to discontinue** **3 - Currently not using, but plan to use** **4 - Currently not using, and plan not to use**

16. ETHNOGRAPHY:

1 - Currently using, and will continue to use **2 - Currently using, and plan to discontinue** **3 - Currently not using, but plan to use** **4 - Currently not using, and plan not to use**

17. FORUMS:

1 - Currently using, and will continue to use **2 - Currently using, and plan to discontinue** **3 - Currently not using, but plan to use** **4 - Currently not using, and plan not to use**

18. JOURNALS:

1 - Currently using, and will continue to use **2 - Currently using, and plan to discontinue** **3 - Currently not using, but plan to use** **4 - Currently not using, and plan not to use**

19. PORTFOLIOS:

1 - Currently using, and will continue to use | 2 - Currently using, and plan to discontinue | 3 - Currently not using, but plan to use | 4 - Currently not using, and plan not to use

20. PROBLEMATIZING:

1 - Currently using, and will continue to use | 2 - Currently using, and plan to discontinue | 3 - Currently not using, but plan to use | 4 - Currently not using, and plan not to use

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PART III - DEMOGRAPHIC INFORMATION:

21. In which one of the following geographic regions does your institution reside?

1 - Oregon or Western Washington | 2 - California | 3 - Eastern Washington or one of the interior western states

22. How many years did you teach in the K-12 grade levels? _____ Years

23. If applicable, in which of the following do you have the most teaching experience?

1 - Primary/Elementary Grades | 2 - Middle School/Junior High Grades | 3 - High School Grades

24. How many years have you taught 3/4 FTE or more in a teacher education program?

_____ Years

25. What is your highest college/university degree earned? In what year? _____

1 - Bachelor's | 2 - Master's | 3 - Doctorate

26. Do you currently hold a valid public school teaching credential? 1 - Yes 2 - No

27. Gender: 1 - Male 2 - Female

THANK YOU!

We thank you for taking the time out of your busy schedule to complete this questionnaire. The number below is only to make sure that you are not sent another questionnaire once we have received this one. When we have group summary information calculated, we will send a summary report out to those professors who participated in the study. Thank you again for your help!

Survey # _____

Appendix B. First Mailing: Letter of Transmittal

WESTERN
BAPTIST COLLEGE
A College of the Bible and Liberal Arts
5000 Deer Park Drive S.E., Salem, Oregon, 97301-9392 (503) 581-8600

November 12, 1993

FIELD(Prof:)
FIELD(Dept:)
FIELD(College:)
FIELD(Street:)
FIELD(City:), **FIELD**(State:) **FIELD**(Zipcode:)

Dear **FIELD**(Prof:):

We are asking you to participate in a regional study on preparing teachers to be "reflective" educators. We are interested in the views of other professors who instruct in elementary and/or secondary teacher education programs. We have chosen to limit our examination to those colleges and universities in the western states which are listed in the Peterson's Guide to Christian Colleges. Your perceptions concerning the development of "reflective teachers" are important to us, in that we hope to compile an accurate view of what our colleagues from other institutions believe about this subject. We wish to be able to modify our programs in such a way so as to better instill this professional character trait in our students, and we hope to provide you with some accurate and useful feedback about the same. In the end, hopefully, all of us may better serve our students, our discipline, and our profession.

We would appreciate approximately fifteen minutes of your time to fill out the enclosed questionnaire. The information you voluntarily provide will be treated with strict confidence. Your identity will not be revealed, as only group summary information will be reported. An identification number has been printed on the enclosed questionnaire to prevent sending a second questionnaire once you have responded. When we have group summary information calculated, we will send a summary report to those colleagues who participate in the study. We are greatly interested in your perceptions, and we stress the need for your participation. Upon completion of the questionnaire, please place it in the enclosed stamped, self-addressed envelope, and drop it in the mail. If you do not wish to participate in the survey, please indicate this on the questionnaire, and return it. We need your response in our hands by **November 22, 1993**.

Together, we can provide answers to questions surrounding this idea of developing reflective teachers. We thank you in advance for your response. If you have any questions concerning the study, feel free to call Grant Tipton or Linda Samek at (503) 375-7019.

Sincerely,

Grant M. Tipton, Ph.D.
Professor, Division of Education

Linda L. Samek
Chairperson, Division of Education

Appendix C. Postcard Follow-up

DEAR COLLEAGUE:

A short time ago, you were personally invited to take part in a survey of professors at Christian College Coalition member institutions. Thus far, we have not received your completed questionnaire. Your response is **important** and will make a difference in the study.

Please complete the questionnaire and return it as soon as possible. If you need another copy of the survey, please call Linda Samek or Grant Tipton at 503-375-7019.

If you have already sent your response, please disregard this reminder and thank you for your cooperation.

Appendix D. Third Mailing: Letter of Transmittal

WESTERN
BAPTIST COLLEGE
A College of the Bible and Liberal Arts
5000 Deer Park Drive S.E., Salem, Oregon, 97301-9392 (503) 581-8600

December 3, 1993

FIELD(Prof:)
FIELD(Dept:)
FIELD(College:)
FIELD(Street:)
FIELD(City:), **FIELD**(State:) **FIELD**(Zipcode:)

Dear **FIELD**(Prof:):

Three weeks ago, you were sent a questionnaire and a personal letter stating that you had been selected as a participant in a regional study on preparing teachers to be "reflective" educators. Ten days ago, you were sent a follow-up postcard. To date, we have not received your completed questionnaire. Your perceptions concerning the development of "reflective teachers" are important to us, in that we hope to compile an accurate view of what our colleagues from other institutions believe about this subject. We wish to be able to modify our programs in such a way so as to better instill this professional character trait in our students, and we hope to provide you with some accurate and useful feedback about the same. With this in mind, we have provided you with a second questionnaire. **If you have already sent your response, please disregard this reminder, and thank you for your cooperation.**

We would appreciate approximately fifteen minutes of your time to fill out the enclosed questionnaire. The information you voluntarily provide will be treated with strict confidence. Your identity will not be revealed, as only group summary information will be reported. When we have group summary information calculated, we will send a summary report to those colleagues who participate in the study. We are greatly interested in your perceptions, and we stress the need for your participation. Upon completion of the questionnaire, please place it in the enclosed stamped, self-addressed envelope, and drop it in the mail. If you do not wish to participate in the survey, please indicate this on the questionnaire, and return it. We need your response in our hands by **December 17, 1993**.

Together, we can provide answers to questions surrounding this idea of developing reflective teachers. We thank you in advance for your response. If you have any questions concerning the study, feel free to call Grant Tipton or Linda Samek at (503) 375-7019.

Sincerely,

Grant M. Tipton, Ph.D.
Professor, Division of Education

Linda L. Samek
Chairperson, Division of Education